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JULY, 1883.

THE GREAT event to farmers and gardeners throughout the country during the past few weeks has been the rain-fall copious for days at a time, and in successive showers. The rain commenced the latter part of May, and before vegetation had much advanced in the more northern parts of the country. It has been of incalculable benefit, though on low, undrained grounds it has occasioned delay in planting, and caused the rotting of seed; the latter, however, must be considered as a small loss when compared with the general good result. The drainage of low grounds in connection with deep cultivation ensures the greatest amount of available moisture to such land in dry times, as well as the speedy passage of superabundant water during great rainfalls. The drainage of low lands, consequently, demands the primary attention of all good cultivators.

The drought in many parts of the country had been so severe that much difficulty was experienced to obtain water for stock; wells had failed, springs dried up, small streams disappeared, and even the larger rivers and inland bodies of water were greatly reduced in volume. Now we can record a full supply of that element so necessary to animal and plant life. Complaints come from all quarters of trees and shrubs dying mysteriously the past spring; many that were in per-

fect health last year, either exhibited no signs of life in the spring or else their buds pushed a little and then withered up forever; many others have started feebly and will probably recover their vigor in time. The long season of extremely low temperature through the winter and spring, with heavy drying winds, in connection with the dryness of the soil, are the combined causes of these losses. Many evergreens, even the hardy native Spruces and Arbor Vitæs, have died. The full extent of the loss in this manner is at present unknown, but it is undoubtedly considerable, and attention must be given at the next planting season to fill the vacancies. It is probable that many fruit trees have died, and some who have indulged in high expectations have been disappointed, but it must be remembered that only those who persevere and overcome all obstacles are the ones that eventually are rewarded.

The different varieties of small fruits have been most vigorously tested, and when the reports are made it will be learned that some of the "ironclads" have failed to honor the confidence placed in them. Vineyards, in some places, have greatly suffered, but the condition of weather and soil have been so exceptional we must regard the test to be one of localities rather than of varieties; and on the whole, though individu-

als are losers, we must conclude that horticulture generally, in this country, will sustain no permanent injury from the trials experienced the past year.

As a matter of general horticultural interest, it is proper here to notice the numerous cyclones, or wind storms, that have visited nearly all parts of the country during the past spring. Their number and the damage done by them is believed to be unprecedented.

At the present time the prospects of the fruit crops cannot be well defined; while in many localities they will be light, in most parts of the country it is probable they will be fair or good. In some parts of the west and southwest much injury has been done by late frosts while trees were in bloom. In southern Illinois an unexpected misfortune has occurred to to the Strawberry growers by the visitation of the Tarnished Plant Bug, as it is called, Lygus lineolaris, which sucks the juice from the young green fruit, leaving it a dry and withered husk. It is spoken of as a scourge in Union and adjoining counties. According to the Prairie Farmer, "it is at first a small, green, flat, louse-like bug, about one-sixteenth of an inch in length, which gradually grows to be nearly one-fourth of an inch long, and changes to a dull, russety color, acquiring wings and flying when full grown." The habits and history of this insect will be more fully made known hereafter.

Our readers have, no doubt, individually, battles of insects in which they are engaged, and we have reason to think that with this powder and that solution they may all receive the reward of conquering heroes; that their horticultural aspirations may, at least in a good measure, be gratified.

In regard to ornamental gardening about our residences we have never had a clearer perception of its progress among the inhabitants of cities and villages than we have at the present time; truth compels us to state that never before did we feel so keenly the lack of it among our rural population. There are exceptions; here and there, along country roads, we see laudable attempts to improve the home grounds by those who thus endeavor to express the love of beauty with which their souls are suffused. Such persons we regard as faithful and useful missionaries in communi-

ties that need their influence. The cultivation of plants and flowers for the love of them—for their beauty—is attended, not necessarily, but almost surely, with the love and the practice of truth, honesty, graciousness and goodness. It does lighten somewhat the loads of even heavy burden-bearers to get so near and sympathize with nature.

THE PELARGONIUM.

The plant most universally cultivated is unquestionably the "Geranium." It adapts itself to our windows in the cold seasons of the year, and in summer is the most conspicuous and the most indis-



PELARGONIUM CAPITATUM.

pensable of all the bedding plants. It is possessed of great vitality and appears to adapt itself to many varied conditions. The term Pelargonium, applied to these plants, is somewhat confusing to many persons. Formerly they were called Geraniums even by botanists, but later it was found there were essential points of difference between them and the plants now known scientifically as Geraniums. Our little wild Herb Robert, Geranium Robertianum, and the Spotted Cranesbill,

Geranium maculatum, are familiar examples of the true Geranium. The flower of the Geranium is regular, consisting of five equal sepals and five equal petals, and ten stamens, five alternate ones being longer than the others. The Pelargonium has, also, five sepals, but the upper sepal is always the largest,



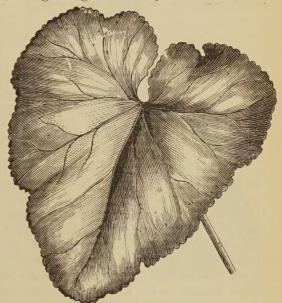
PELARGONIUM GRAVEOLENS.

and the two upper petals are usually either larger or smaller than the others, and stand together, while the three lower ones stand together in a close group, thus forming an irregular corolla. Without noticing other points of difference, those mentioned are sufficient to indicate sufficiently to the general observer the grounds for the scientific distinction of the two genera. But we desire to call attention to one more point of difference. The upper sepal of a Pelargonium is extended downwards as a tube along the pedicel, or flower-stem. By taking a sharp knife and cutting across the pedicel immediately below the base of the flower, this tube may be distinctly observed, or by making a number of cross sections they might be strung on a thread



like beads. The cross section here represented is magnified about four diameters;

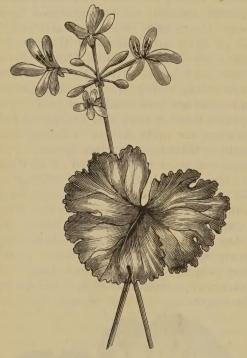
PELARGONIUM. B is the pedicel, A the tube. of PEDICEL. This tube secretes nectar, thus making the flower attractive to insects. Nearly six hundred wild forms or natural species of Pelargoniums have been found and described, and nearly all of them are natives of the country about the Cape of Good Hope. From these have been derived the varieties in cultivation, which are almost innumerable, and are increased every year. The species that are kept true in general cultivation, are quite diverse in foliage, and many of them have fragrant leaves. Perhaps the most highly prized of all these is the Rose Scented, P. capitatum. GRAY'S description of this species is as follows: "Softly hairy, with the rosescented leaves moderately lobed, the lobes short and broad; peduncle bearing many sessile flowers in a head; petals rosy purple, barely a half inch long." A correct representation of it is shown by the engraving. At the present time, we



PELARGONIUM ODORATUM.

find this species not to be very generally cultivated, but its place is taken, to a great extent at least, by another which we judge to be P. graveolens. Though botanists recognize P. capitatum as the Rose Geranium, we think that under this name the trade mostly, at this time, are

cultivating P. graveolens. The leaves are rough, hairy, deeply lobed, or sinuate and rough-haired on the margin; they exhale a pleasant rose fragrance, especially when bruised. The flowers borne in a head or umbel, and nearly sessile, are a rosy purple. The petals are scarcely half an inch in length, and are represented full



PELARGONIUM ODORATISSIMUM.

size in the engraving. The leaf shown is a small one; with good cultivation the leaves are often three inches or more in length and breadth. The plant has a vigorous habit, and can be raised to a large size.

The Apple Scented Geranium is known in the trade as P. odoratum. The leaf varies in form from roundish to oblong; it is slightly lobed and with a crenate margin and more or less wrinkled; nearly smooth underneath and with a soft pubesence on the upper surface. The fragrance of this species is very pleasant to most people, and it is quite popular. This species, by this name, is not mentioned among nearly three hundred described in Paxton's Botanical Dictionary, nor is it found in any of several other standard botanical works at hand. At present, therefore, we must regard the name now used in connection with it as at least questionable.

The Nutmeg Scented Geranium is described by GRAY as having "branches

slender and straggling, from a very short scaly stem or base; leaves rounded and crenate, soft velvety, small; flowers on short pedicels, very small; petals white, scarcely exceeding the calyx." To this we can add that the two upper sepals are finely striped or penciled with purple, and that the color of the foliage is grayish, or pea green. This species is P. odoratissimum, according to GRAY. Wood describes a somewhat different plant, P. fragrans, as the Nutmeg Scented. The description given above certainly applies to the plant commonly known as Nutmeg Geranium.



PELARGONIUM VITIFOLIA.

Balm Scented is the common name of P. vitifolia, or Grape-leaved Pelargonium. Leaves from five to seven lobed, rough hairy on both surfaces, margin irregularly blunt toothed, often three inches in length and breadth. The flowers measure about three-quarters of an inch in breadth and an inch the broadest way. The flowers in color are a very light lilac, the lower petals being merely tinged, and the upper petals at the center

clouded with a dash of rose, underneath which is a spot nearly white, and under this two crimson stripes.

A variety known as Peppermint, and also as Pennyroyal, has foliage and flowers much resembling the Rose Scented variety described above; the



PEPPERMINT GERANIUM.

leaves are cut in the same way, though more finely, and the flowers are about the same size, similarly marked, but with little higher colors. The leaves and petioles are covered with short, coarse hairs, and broadly triangular stipule. Leaves and flowers are shown in the engraving of natural size.

Many more kinds of scented leaved Geraniums might be noticed, but we leave this part of the subject now, hoping to resume it at some future time with other illustrations. This wonderful family mimics other plants, not only in their fragrance but in the forms of their foliage. Thus, there are the species Acerifolium or Maple-leaved, Alnifolium or Alderleaved, Anemoneifolium or Anemoneleaved, Artemesiæfolium or Wormwoodleaved, and so on through a long list, which would make a large volume properly to describe and illustrate. At present we notice but three kinds. P. betulinum is the Birch-like Pelargonium, having slender stems and branches, appearing almost smooth, but furnished with a few soft hairs. The leaves are

ovate, wrinkled toward the edges, somewhat unequally toothed, and having on both sides a very short pubescence. From two to four flowers are borne on a peduncle about three inches in length, and pedicels three-fourths of an inch. The flowers measure an inch and a quarter, and an inch and a half in their two diameters, and are quite showy; color nearly white, having merely a soft tinge of lilac, with the two upper petals striped with crimson. The plant is rather straggling in its growth, but by proper pinching and training can be made to assume a good form. It is an interesting and attractive plant when in bloom.



PELARGONIUM BETULINUM.

The Oak-leaved species, P. quercifolium, presents a striking resemblance in its leaves to those of the Oak. The leaves frequently have a dark stripe through the middle, giving it a fine variegated appearance. We find among florists two styles of foliage on these plants, and apparently they are cultivating two strains of plants, one having the

lobes of the leaves somewhat rounded, as the type of the species is said to be, the other somewhat pointed, as shown in our engraving. On these plants we find the flowers to differ; those of the pointed-lobed variety being an inch and a half in its longest diameter, the three lower petals are a light rose and the upper ones with the same ground color, have markings and spots of a dark crim-



PELARGONIUM QUERCIFOLIUM.

son; the flowers of the round-lobed variety are scarcely an inch across, with a deeper shade of rose, and the upper petals having small marks and only a suspicion of a spot. This difference may be a so-called accidental variation, and not due to any continued effort of breeding, but having been noticed has been preserved.

The Ivy-leaved Pelargonium, P. peltatum, is the favorite of all the leaf imitators. The resemblance to the Ivy is very great, and the handsome flowers are borne very freely. This species has received great attention at the hands of florists, and by crossing it with P. lateripes

many fine varieties have been produced. The variations relate both to the foliage and the flowers; some have leaves with dark lines, some are white-edged; the flowers are of many shades of color, and there are many double and semi-double varieties which appear to please most the popular taste. Altogether they are plants of great beauty, and easily raised.

For a long time, varieties of Pelargoniums were cultivated and popularly known only as Fish and Horse Shoe Geraniums. The so-called Fish Geraniums were varieties of P. inquinans, introduced into England from the Cape of Good Hope in 1714. The old dwarf bedder, Tom Thumb, is a descendant and good representative of the inquinans varieties. The leaf of Sir Harry, represented in the engraving, shows the general form and appearance of the foliage. It has a uniform light green color, and only a faint trace of a darker band clothed with soft, downy hairs. A single flower of P. inquinans is given of full size, and correct form. The color is an intense scarlet. The production of Tom Thumb, some thirty odd years since, is said to have been the most important advance made in the improvement of the original variety up to that time; since then wonderful changes have been effected. Pelargonium zonale was introduced into England from the Cape of Good Hope in 1710, and from it issued the Horse Shoe varieties, so called on account of the dark zone or band on the leaf, here shown by leaf of the variety Sunshine. The color of the flower of P. zonale is scarlet. By cross-fertilizing these two species, inquinans and zonale, and their descendants, have been originated the immense number of beautiful varieties of many shades of color, now known popularly as scarlet Geraniums, for it must be understood the general term covers varieties of white, salmon, pink and almost numberless variations of tint, both in single and double flowers. British florists usually apply the term Zonal Pelargoniums to these plants and distinguish them by reference to their particular characters, such as Double White Zonals, Single Scarlet Zonals, Bedding Zonals, &c., then the Golden Tricolors, Silver Tricolors, Golden Bronze, and many other distinctions. From the same source, also, or more directly from P.

zonale, have been derived the tricolor varieties, or those having leaves with bright colored zones, such as the well known Mrs. Pollock and Lady Cullum. All these scarlet or Zonal varieties can be considered as ever-blooming, for their habit is to grow and to produce flowers almost continuously, only being some-

PELARGONIUM PELTATUM.

what checked at the coldest and dullest season of the year. If the term, Hybrid Perpetual, could be applied to them it would be far more appropriate and expressive than it now is in connection with the class of Roses so designated. sides, it would indicate broadly the difference between these varieties of the Pelargonium and those very generally known in this country as Lady Washington Geraniums, or simply Pelargoniums, which many suppose to belong to a different genus of plants from the scarlets.

Pelargonium grandiflorum, a native of the Cape of Good Hope, was introduced into cultivation in 1794, or very soon

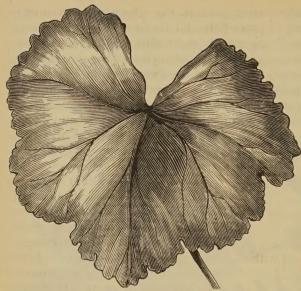
after, and it has given rise to all the large-flowered varieties that have a comparatively short time of blooming once a year. The cultivation of the grandiflorum varieties of the Pelargonium is carried to a great height in Great Britain and Europe, and the number of varieties is immense, and many distinctions and classes

> are made of them. Without noticing smaller divisions, we present three engravings, representing flowers of different styles as typical of classes that florists make in these plants. These classes are designated as Show, Fancy, and Spotted and Fringed. The necessary points in a Show variety are evidently a flower of the largest size, as nearly circular as possible in outline, and the upper petals of a uniform shading. Fancy varieties may include all variations from the Show varieties with smooth, flat petals, and comprise all those with strong contrasts of color and irregular markings. The character of the Spotted and Fringed varieties is sufficiently indicated by the name of the class.

> In this country the cultivation of these plants is not carried to the extent of warranting the observance of these distinctionssome time it may be, and when wanted they can be made-at present we only desire a term that will distinguish them from the scarlet and bedding varieties. If we call them Large-flowered Annual Pelargoniums, we indi-

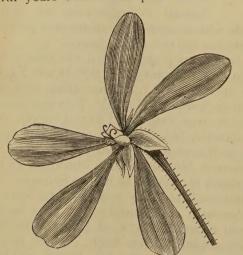
cate with precision the distinctive points between the two great classes.

It appears probable that the time may not be far distant when florists will have to recognize still another class, that of Large-flowered Monthly Pelargoniums In the year 1875, Mr. FRED. DORNER, of Lafayette, Ind., raised a seedling of the large-flowered class that proved to be a frequent bloomer. Mr. Dorner's own account in relation to it is as follows: "I undertook to grow some Pelargoniums from seed. I procured some choice seed from Ernst Benary, of Erfurt, Prussia. The seedlings grew finely. About midwinter one commenced to bloom, and to my astonishment kept on blooming for



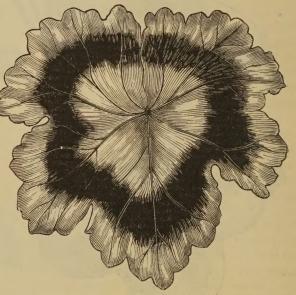
PELARGONIUM SIR HARRY.

ten months, during which period it never was without flowers. The plant grew to a good size, and at one time I counted forty-seven good trusses on it. The winter and ever-blooming quality, with the large and beautifully colored flowers makes this Pelargonium a great acquisition to the amateur as well as the florist. I have seen, here in Lafayette, plants in windows blooming all winter, and it is acknowledged here to be the best and easiest kept house and window plant, blooming nine to ten months in the year." This seedling was named Fred. Dorner, after its originator, and has been quite widely disseminated, and after several years' trial it has proved true



PELARGONIUM INQUINANS-SINGLE FLOWER.

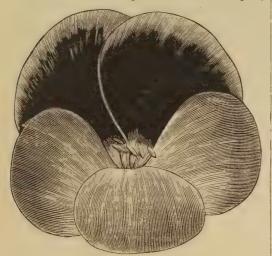
to the description first given of it, and has become a favorite with all who have cultivated it. A branch on one of the plants, a few years since, produced a lighter colored flower than the rest; this branch was propagated and the plants from it continued to produce the lighter colored flowers, thus giving rise, by sporting, to another variety with the same ever blooming quality as its parent. This variety was named Freddie Heinl. Another, originating we know not exactly how, is called Robert Heinl. There are a number of varieties of French or German origin, not much cultivated yet in this country, and whose history appears to be obscure, that have the continuous blooming habit



PELARGONIUM SUNSHINE:

of those already noticed. The varieties of these, perhaps, most worthy of mention are Hofgartner Kellermann, Madame Glevitsky and La Grande. There are several other fine varieties, and it is not impossible that their number may soon be largely increased, and thus a class established of continuous bloomers, descendants of P. grandiflorum.

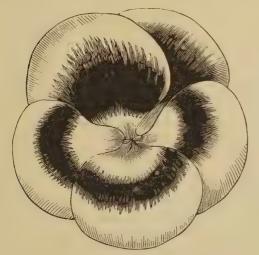
We have now noticed briefly the great lines or streams of descent of the popular varieties of Pelargoniums, but it must be understood that these streams have been affected by minor currents that have flowed into them from different directions. Besides the typical species, P. zonale is said to have three natural varieties. P. echinatum has been hybridized with P. zonale; other species have also contributed to the disturbance of the natural equilibrium, until we find now that variation in the seedlings is the rule and not the exception. P. lateripes,



PELARGONIUM AMETHYST.

Example of Show variety. Lower petals dark red, almost maroon, with a purplish tinge; upper petals shaded with black.

which has been hybridized with P. peltatum, consists of the typical species and three natural varieties. One of these, alba marginatum, a white edged variety, has pale red flowers; another, roseum, has red flowers, the other, zonatum, with



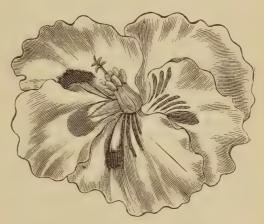
PELARGONIUM DUCHESS OF EDINBURGH.

Example of Fancy variety. Petals with pure white ground shaded with carmine.

pale purple flowers, has a dark zone or stripe on the leaf; from this it is not difficult to perceive how the numerous varieties of the Ivy-leaved section may have been produced.

The double-flowered varieties consti-

tute the latest benefaction to flowerlovers of this family of plants of wonderfully admirable qualities. The hybridizing of plants frequently results in a tendency of the essential floral organs to change to petals, and after many years of this process such has been the result in this family. So far the varieties of P. grandiflorum have not been affected in this manner, but as these have been cultivated a much shorter time than the descendants of P. inquinans and P. zonale, it is not improbable that we shall yet see double-flowered varieties of the largeflowered section. Not the least interesting of the Pelargoniums are the varieties with colored and variegated leaves. For bedding purposes they are of great value. Those with white-edged leaves, and those having such high colors as are shown in Mrs. Pollock and Lady Cullum, are too



PELARGONIUM MAID OF KENT.

Example of Spotted and Fringed variety. Petals with frilled or wrinkled edges, white, spotted with crimson.

delicate to be useful as bedders, although the white-edged varieties are much used for this purpose, still, they lack vigor of growth. The strongest are those in m which yellow predominates and is relieved by dark zones.

Seedling plants of any of the Pelargoniums are almost sure to be of great variety, and as many varieties produce seed freely, it is at once one of the easiest and most satisfactory of plants to experiment with in this way. Those who wish to attempt cross-fertilizing can have no better subject than this to deal with for that purpose. The parent plants should be selected with reference to the qualities desired in the seedlings. These

being fixed upon, watch the future seedbearing flowers, and as the buds begin to open take a pair of little scissors and cut out the stamens in order to prevent fertilization by its own pollen. The second day after the bloom opens the stigma will be in proper condition to receive the pollen from another plant, and this can be placed on it with a small camel's hair pencil. If any particular quality is aimed to be produced, it must not be expected, except as a result of successive generations, breeding in and in, as it, is termed.

It is probable that we shall yet witness variations in this plant as remarkable as those that have already been produced. How lately we have witnessed surprising variations, both in foliage and flowers.

LARKSPURS.

The pretty colored plate in this number tells its own story of the beauty of one of the best known flowers of our gardens. The bright colors of this plant and its peculiar form make it particularly attractive. Both the annual and the perennial varieties should have a place in the garden. As cut flowers, for table bouquets, they are indispensable. shades of blue they afford are almost, if not quite, unequaled by any other flower. The plants are of the easiest culture, adapting themselves to almost all soils, and yield their flowers in great profusion: still the finest spikes and largest flowers can be raised in well drained, rich soil. The perennial varieties, such as shown in the plate, not annual, as printed, are very desirable to plant among shrubs, or to form a border to a bed or group of shrubs; they will remain in fine condition a number of years, and when too old can be divided. A mass of these plants can be kept in fine flowering condition a long time by retarding the blooming of every other plant, by pinching it back or cutting it off in the spring when it has made from eight to twelve inches of growth; cutting down the young shoots will cause the plants to make others, and more of them, and will delay their blooming until the earlier plants have finished theirs. Except for their short life of one season, the annual varieties are about as good as the perennials. Both kinds are quite hardy, and the annuals can be brought into bloom

early in the season by sowing the seeds in August or September.

The botanical name of this plant is Delphinium, and relates to the fancied resemblance of the flower to the Dolphin; and the common name, Larkspur, has allusion to the spurred petal. It is said that the old English name was Lark's heels. We have a number of species in this country, but none of them will compare with these varieties in beauty whose original home was Siberia. Delphinium cardinale, of California, is a splendid flower, but it is not hardy here. All of the varieties of Larkspurs now largely cultivated by seedsmen and florists are worthy of the attention necessary to raise them, and few plants yield more of beauty for so little care.

JULY NOTES.

Busy hands will be needed in the garden this month. Besides keeping down the weeds, stirring the soil for the growing crops, gathering fruit and vegetables and keeping all tidy, there can yet be done some planting and propagating.

At intervals of ten days Sweet Corn, for successive use, can be planted, small plats at a time so as to have that delicious vegetable fresh and tender until late in the season. Cucumbers for pickling can be planted on ground cleared of early crops of Peas. Early varieties of Potatoes can be put in and matured. All available ground can be sowed with Turnips, a crop that can always be disposed of if well grown. The land for this purpose should be in fine tilth and rich; the quicker a Turnip can be grown the crisper and sweeter it is. Sow in drills and cultivate with hand or horse cultiva-Strawberry plants wanted for new beds should be layered into small pots sunk in the ground and filled with a light, rich soil; in this way good plants can be secured even if a drought should prevail, which, however, there is little prospect of this season. But better plants in any case can be thus raised and more safely transplanted. By a little care in shading, seeds of many kinds of herbaceous perennials can now be sowed and a good start be given the plants for next spring's planting. Cuttings of many kinds of bedding and house plants, and of flowering shrubs can be made and rooted in open ground.



A SUMMER DAY.

In idle mood, this happy day, I let the moments drift away. I lie among the tangled grass And watch the crinkling billows pass O'er seas of Clover. Like a tide, That sets across the meadows wide, The crimson-crested ripples run From isles of shade to shores of sun, And one white Lily seems to be A sail upon this summer sea, Blown northward, bringing us to-day A fragrant freight from far Cathay.

Low as the wind that woos a Rose,
In gardens where the Poppy grows,
And sweet as bells heard far away,
A Robin sings his song to-day;
Sings softly, by his hidden nest,
A little roundelay of rest,
And, as the wind his dwelling swings,
He dreams his dreams of unfledged wings;
While, blending with his song, I hear
A brook's sweet babble, somewhere near.

A glory wraps the hills, and seems To weave an atmosphere of dreams About the mountain's kingly crest, As sinks the sun adown the west. Earth seems to sit with folded hands In peace he only understands Who has no care, no vain regret, No sorrow he would fain forget; And, like a child, upon her breast I lay, this happy day, and rest.

The "green things," whispering in my ear, Tell many things I love to hear; Of blossoms hiding in the mold, And what the Acorn cups enfold; Of life unseen by eyes too dim To look through nature up to Him Who writes the poem of the year, For human heart and eye and ear.

Oh, summer day! Oh, day so fair, With hints of heaven in earth and air; Not long I keep you in my hold, The book is closed—the tale is told. The valley fills with amber mist, The sky is gold and amethyst; Soft, soft and low, yet silver clear, The Robin's vesper hymn I hear, And lo! the stars come, one by one! The happy summer day is done.

-EBEN E. REXFORD.

FUCHSIAS.

Any one who has visited the midsummer Floral Exhibitions in England will have a distinct recollection of the delight and amazement with which he first looked upon the wondrous plants of Fuchsias exhibited, huge pyramidal specimens, six to ten feet in height, perfect in form, with myriads of graceful bells glowing against their fresh dense foliage. It is a sight for a life time, and the memory retains it with lively pleasure for years. We may have looked upon more showy plants, we may have seen grander, but such a combination of grace, beauty and chaste, yet glowing, color can only be found in the Fuchsia. Those who have only seen the scraggy, ill-shaped, miserable looking plants one commonly finds in private places, or the little plants with a dozen flowers on, sent out by florists, have no conception of the grandeur and beauty of a well grown and well flowered specimen.

Why are not these plants better grown? I am sure if gentlemen knew what a glorious sight one or two dozen specimen Fuchsias make, either in the conservatory or on the lawn, during summer and fall, they would want their gardeners to make somewhat more of a specialty of them, and well they would repay any extra care and attention. In the meantime, I will give a few essential points in their cultivation. Strike the cuttings as early as possible in the year, January or February, if they can be obtained then, and grow them on in a temperature of 75° Fahr., syringing morning and evening. Whatever you do, do not pinch the leader, and let the lateral branches be at least eight inches long before taking the points out, and so on all through their growth. A good compost for growing them may be made of equal parts of

turfy loam, leaf mold, or spent Hops, well rotted manure and sharp sand, with a liberal sprinkling of bone meal. Never give the plants too large a shift at once, but shift as often as the roots get to the edge of the pot; never neglect the syringing, and put a suspicion of salt in the water once a week, especially in places far removed from salt water, as I have noticed that in Anglesea, the Isle of Man, and along the coast of England, where the atmosphere was moist and salty, there the Fuchsia was always most luxuriant, so, if we want the greatest amount of growth we must supply that element. Never let the Fuchsia get dry, if you do it will lose some if not all of its foliage. Always soak the ball well in the evening, so that the plant may drink its fill during the night. Raise the plants in a light, airy, span-roofed house, and you will fairly see them grow. When you have specimens large enough, and if struck in January or February, in July they ought to be six feet high and duly proportioned down to the pot, let 'them become pot-bound, and when they begin to form buds begin to feed them with good rich soup twice a week, and they will soon repay your labor by their beauty. When they have done flowering stand them outside in the sun, so as to ripen the wood, and then dry them off gradually and place in a cool, dry cellar, or a room where frost is barely secluded.

As soon in the new year as may be, bring them under the influence of heat and moisture, cutting the branches in somewhat, but not too much, and when they begin to start to grow shake them out of the soil, prune their roots and pot them into as small pots as you can, and grow on as before; these, by July, with proper heat and attention will make specimens eight to ten feet high. But the Fuchsia is also a good plant for covering a wall in a greenhouse or conservatory, or as a pillar plant. I have one I planted two years ago and trained partly over an arch in a conservatory; when in flower, last year, it was about ten feet high. It has now, April 27th, been in bloom since March came in, and is about fifteen feet high, some of the lateral branches having as many as twelve and fourteen expanded bells open at once, and is admired by every one. I shall give it a two months rest and then shake

it out, put fresh soil in the box and have it in bloom again shortly after next Christmas. The best varieties for winter that I know at present are Speciosa, Mrs. Marshall, Carl Halt, Brilliant and Pearl of England. For summer blooming florists can supply two dozen good sorts, double and single, and in most cases it is best to rely upon their selection, as they know which have the best habit of growth.—WM. Hy. WADDINGTON.

SOFT-FLESH DESSERT APPLES.

Some time last year my attention was attracted by some remarks by a gentleman of Rochester, in protest against the wholesomeness of hard-fleshed Apples when eaten raw. His view of the matter seemed to me eminently just, and I have thought I should be doing a service to your readers by making out a list of some of the best flavored, most thrifty and productive varieties which have the quality of softness and consequent easy digestibility.

Summer Varieties—American Summer Pearmain, Early Harvest, Sweet Bough, Yellow Transparent, Chenango Strawberry.

Fall Varieties—Primate, Garden Royal, Foundling, Dyer, Peach, Pound Sweet, Haskell Sweet, St. Lawrence.

Early Winter Varieties—Gravenstein, Fameuse, Wagener, Wealthy, Hubbardston Nonsuch, McIntosh Red, and Lady's Sweet.

Late Winter Varieties—Jonathan, Dominie, Hunt Russet, Grimes,' Golden, McLellan, Bottle Greening, Cogswell, Northern Spy.—T. H. HOSKINS, M. D., Newport, Vt.

WITHERED FLOWERS.

Sweet withered flowers that have silent lain,
In the dust of the vanished years,
They might almost thrill into life again,
'Neath the dew of my falling tears;
I have cherished them fondly, safe hidden away,
Too sacred for careless eyes,
I would they might wake in the judgment day,
To blossom in Paradise.

The heart that gave them lies hushed and still In the dust of the lonely years,

It might almost beat with the old-time thrill, 'Neath my passionate falling tears;

It might almost throb into life, and stay
For the prayer of my longing eyes,

But I know it will wake in the judgment day,
To greet me in Paradise.

-OLIVE M. HARRIS.

CALIFORNIA GARDENS.

In writing these words I feel like one who takes some such theme as the pleasures of heaven, or the bliss of friendship, which conveys in itself all that mortal pen can say on the subject. Shall I begin with the thousands of acres in bloom from the Colorado desert to Yosemite and Siskiyou, the northern county? The desert from Los Angeles, the bare, red, volcanic desert was a gorgeous garden, last June, as we rode through it in the red sunset. Not a patch of green grass would grow anywhere, but out of the sand, as closely as they would be planted in a park for effect, rose the stately Yuccas, in fragrant white bloom, ten and twelve feet high, with their creamy bells hung like the rows which tinkle in Chinese pagodas, or like great candelabra lighted in the lessening daylight. The ground was a mat of gold, crimson and purple Cactus, so vivid they seemed to the eye, as it caught their gleam in flying fast. And after a run-like procession of creamy Yuccas flashed a spike of tall Campanula, brilliant as scarlet Lobelia, a lance of fire shot with the last rays of sunlight, and before we could catch breath, at these glories the desert was showing us, there was a gleam of such wonderful purple fire cresting the fluted pillar of the Pitahaya, among a breadth of pale gold Cactus, as recalled the colors of cardinal's robes of state. Never in my life do I expect to see such a revel of color and splendor as in that luxurious southern desert. All the hues and lights of precious stones, undeveloped in the volcanic rock burnt and ground to powder which makes the earth of lower California, had blossomed in the jewelled petals shot with sun.

I forget when we came into the Lupine desert. From Yosemite and the Hetch-Hetchy valley to the wastes about Monterey and to the foot of the Sierra you find these acres of yellow, pink and purple Lupine growing out of the clear sand, in huge, bushy plants two and three feet high and spreading as wide, bearing clusters of flowers like those of the common Locust, and sweet, heavy sweet as honey. The Orange blossoms of Los Angeles are no sweeter, and perfume the breeze no farther. Indeed, the Orange flower honey, put up in such quantities in the southern counties, I am told, all comes

from the Lupine, which in square miles of delicious blossom furnishes the beefarm of San Diego. And it never was done blooming the eight months I was in California, and in some places round Monterey and Santa Cruz you can never be without the scent of honey on the wind from this lavish, affluent, bee-loving plant. It should be the state flower, for it furnishes thousands of dollars of wealth yearly without effort or culture to the bee ranches.

Lowlier companion of the Lupine, the Abronia weaves its mat of lilac, pink and heliotrope over the sands in succulent ever-flowering growth, for it is wonderful how such rich, fresh tresses of bloom can spring out of the bare beaches. At Monterey, between the tall groups of Lupine, the Abronia covers yards underfoot, in clusters of rosy blossoms, broad as the palm of one's hand, set as thickly as they can find place on the creeping plant. and they only cease within a few yards of the water's edge. They grow as the Verbena does in Colorado and Arizona, where it looks up in joyous, bright tints from the bare earth that is like sifted rock-dust from the quartz stamping mills. A flower-loving editor and I once sat in the sanctum of a daily New York newspaper office discussing whether or not it were best to treat the Verbena to rich soil and water, seeing it was a desert plant. On the general principle that you cannot treat any thing too well, I gave my Verbenas plenty of liquid sewage on mellow garden soil, and they grew in such large-eyed flowers as were more like Phlox Drummondii than the modest bedding plant they profess to be, and were fragrant as any Sweet Alyssum, which shows that if the desert does well, cultivation does better. But I wouldn't want Abronia improved beyond some of the large, clear trusses of pink and white, or lilac and white, as they grow on the Pacific beaches, for to enlarge or alter them would be to change the character of the plant entirely. The companion of the hills, ranging from the margin of the sea to the snow-line of the Sierras, the yellow Eschscholtzia, the California Poppy of the gardens, flounts its yellow golden cup with orange center, less lovely than the Buttercups which strew Yankee pastures, for I really grew tired of this brazen wayfarer which was blooming

wherever it could get a foothold, from June to September, and began again the middle of November. *Toujours* Eschscholtzia was too much even for a lover of yellow flowers. You would have liked it up in the slopes which blossom among the mountains, where the hillside under the strong, cool breeze changes, one moment cloth of gold, as all the yellow disks toss into place, the next grey-green with sunny lustre on the folds.

The pen has been idle in my hand five minutes since that last line, and I have been in a reverie looking at those enchanted California hillsides again, which are so much clearer and vivider to my sense than the quiet Dedham fallows which meet my eyes. Don't go to California, or the Southwest, unless you can stay there, if you wish, for it is like the enchanter's land, which those who once visited it were consumed all their lives with desire to see, nor any region seemed fair to them again. I would not live in California where society and its interests are so different from any thing we are taught to care for, and yet the loveliness of its climate and the paradise of its plants and flowers will haunt me till I die.

If the wild flowers are so prodigal, what shall I tell you of the gardens? Let me select two famous ones, at the El Monte Hotel, near Monterey, and that of the Golden Gate Park, San Francisco. Monte itself, is one of the most beautiful places in this country which ever gathered charms about it and called itself a hotel. It has seventeen miles of pleasure drive through its own forest, along sea beach and rugged coast overhung with ancient, low-bent Cypresses, Italian as anything off the Corniche road, turning by woody glades among the hills; fair and serene as scenes in the Bavarian Overland. It has the most exquisite bay to itself, and choice of such scenery and sights of romantic interest as give a new pleasure for every day of the season, and I cannot imagine a person of educated tastes finding it possible not to be absorbed and excited by natural pleasures all the time. It is Nice without its burning summer, Newport without a winter to chill its Roses, one spot left to let us know what Eden was like. Imagine a place where never a day of heat is known the year round, never frost or "snow's inclemency," where they light

fires in the picturesque hall fire-place just to add a luxurious touch to the delicious evening, nearly every day of summer, and where the Roses are at their prime in midwinter. This evenness of temperature the year round gives plants undying vigor and wonderful luxuriance. "But it is not all soil or climate," the master gardener, Mr. Ulrich, says, "people talk of the soil of California as if it did everything. It takes plenty of care and manure, too, to grow those Roses." We were looking at the arches of Lamarque Roses over the east porch, a vine not over two years old, which embowered the whole wide piazza with such wealth of flowers and buds as we do not get in our greenhouses. Round three sides of the hotel runs a twelve feet border crowded to the walls with flowers as thick as they can grow, and such flowers. Foxgloves in royal colors, seven to ten feet high, Mimulus in velvet and more shades than the Queen's gowns, Wallflowers taller than a man, in deepest, richest colors and fragrance, Ten-Weeks Stocks by the yard in spikes of blossom, Canterbury Bells, Salvias, all gigantic, velvety, glowing like painted windows, in banks of gorgeousness undreamed of. The gardeners were uprooting and wheeling away barrow loads of their superb plants to give the rest room, and make way for something new. Such flower borders by the hundred feet give one an idea how royal the art of gardening may be. These garden flowers were massed at the back of the house mainly, in front were choice Roses, Passion Vines, Jasmines and the high court of flowers; among the Pines and Live Oaks are glimpses of the Rose beds and the Cactus garden, laid out with the finest of native and Mexican Cactus. Very formal and quaint it looks with the fluted pillars of the Pitahaya and the turban rising from ovals and foils of the low-growing sorts, and very curious for those who admire Cactus, which I do not—out of the desert. Let me prefer the climbing Roses which wreath the bowling alley, a romantic little cottage with latticed windows shaded by such Sweet Brier as grows not out of England. There is a taste, a poetry about the gardening at El Monte, which reveals what artist and creator of the most beautiful, the gardener can be who truly feels the rank and dignity of his pursuit.

The Golden Gate Park needs more than one notice to itself, for bolder enterprise can hardly be to eastern eye than that of turning the wastes of the ocean sands into a pleasure ground. But the impossible is accomplished, grudgingly on the part of the city government, it is true, yet the spirited Park Commissioners work wonders with what they are allowed to do. It is between three and four miles from the eastern entrance to the beach end of the park, and cultivation creeps from the city driving-gate seaward, already turning one-third the distance into some of the most exquisite landscape gardening to be imagined. Sheets of lawn are relieved by groupings of lordly shrubbery, whose contrast of spire and drooping habit, of sunny and sombre leafage, fascinate the eye. The planting of these groups of trees is a study by itself. The sunny Australian Acacias, which feather into masses of golden green plumage, are backed by the slender, dark and well defined Pittosporums, Japan Privets, and Lawson Cypress, with the spires of Eucalyptus rising fifty feet from the center of these grand plantings. Pittosporums and Acacias are not the modest shrubs they are with us, but expand in their endless, revolving summer to superb and flexible growth. With art that tolerates no break in its compositions, the space from the lower branches of the shrubs is filled with screens of flowers, tall, black Heliotropes, for instance, fronted with salmon-scarlet Geraniums leading the eye down to a border of blue Ageratum with margin of pink and white Daisies next the grass. The effect of so finishing these groups is finely adapted to pleasure grounds, and a series of such superb pictures draw the eye near the carriage entrance. As the drive leaves the ornamental part of the ground, with its quarter miles of gorgeous flower borders, where all summer holds its court in the blooming of May and September together, the banks deepen, planted thick with Scotch Bilberry and Heather, dwarf Juniper, Holly, and the Monterey Pine, freshest of evergreens. Hundreds of acres of sand hills have been planted, with the choicest evergreens of both hemispheres. Native Holly and Live Oak in dense chapparal clothe the northern knolls, kindly conceding a look of rich cultivation till the when finally arranged, a very desirable

Park Commissioners take in hand to root it up, which let us hope they may be too wise ever to do. Scotch Fir, Juniper, Funeral Cypress, Portugal Laurel, New Zealand and Australian Pines, Palms and bright leaved Japanese shrubs are recognized in the skillful planting, and against such sombre banks Maiden Magnolias, in warm, sheltered nooks, lighten the shadow with their flowers, a clump of Pampas Grass rises silvery fair, or the New Zealand Flax breaks into a fountain of dripping green. I cannot begin to speak of the Park gardens, which I loved and studied for months in daily visitsof them another time.—Susan Power.

A ROCKERY WITHOUT ROCKS.

In most portions of Florida rocks and stones are scarce, and whenever the subject of having a "rockery" is agitated among the numerous and skillful amateur florists of this "Floral City of the Land of Flowers," the question most likely to arise is, "where shall we get the rocks?"

One of the finest and most complete flower gardens in the city rejoices in a magnificent and elaborate rockery formed with large rocks brought here from the coast by rail, the rocks having once composed part of the ballast of ships.

While re-modeling our front yard, or lawn, a few days ago, we came to the ugly stump of a large Oak which had been uprooted by a gale, last fall, and it was about to be removed to the wood pile, when the query occurred, "why not set it up on its base again and make a rockery around it?" It was done, and I will tell the readers of Vick's how it was accomplished.

First, the unsightly stump was righted to its original position, but standing with most of larger roots exposed, its position being about two feet higher than when it stood as a tree. Around these roots, all of which had been trimmed off to within two or three feet of the stump, was piled "in picturesque confusion," a quantity of refuse from an ancient brick-yard in the neighborhood, composed of masses of different sizes and fantastic shapes of bricks fused together by the fire of the kilns, and harder than most rocks, their jagged and uneven surfaces presenting,

succession of interstices of different sizes and shapes, into which rich earth was packed, and in the earth flowers and all sorts of running vines were planted, with a border of Sweet Violets around the base. The old stump was thus almost entirely concealed, except a small portion of the stem of the tree which was sawed off square to afford a sort of table stand at the top, on which to set a vase filled with growing vines.

Thus, a most awkward and unsightly object was transformed into what will, doubtless, prove to be "a thing of beauty and a joy forever."—C., Tallahasse, Fla.

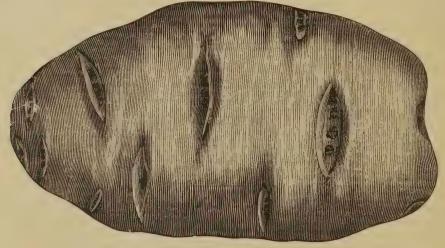
EARLY GEM POTATO.

I raised the Early Gem Potato last year and found it one of the best varieties I ever cultivated. I did not plant it at the same time as other sorts, nor did I make

SUCCESS WITH THE TUBEROSE.

Perhaps there is no flower with which so many failures are made by the amateur as the Tuberose, nor is there one, perhaps, with which there need be less. by attentive readers of this MAGAZINE; certainly there is none which so amply repays any little extra attention in regard to details which its treatment may require. Its treatment for bedding out, or for late fall bloom in the house, has been frequently noticed. This season, I have been trying to see how early it could be induced to bloom, and as my appliances were simply the coal stove in my office, the result may act as an incentive to those enthusiasts who have no greenhouse, to try the same experiment.

I procured a common tin evaporating pan about five inches deep, and removing the swing cover of the coal stove,



EARLY GEM POTATO.

any notes in regard to the time of its growth and maturity, though I know it to be quite short. This year I planted it in April, in a snow storm, along with Boston Market, Early Ohio, Beauty of Hebron, Early Rose, Early Vermont, and some other varieties, and expect in July to know its comparative time of ripening. It is of medium size, but yields well; the eyes are few in number, of small size, and shallow. Long before the tubers attain their full size they can be used, and are dry and mealy; in this respect it is almost, if not quite, unequalled, and this quality makes it one of the most desirable varieties for early use. It cannot fail to make itself well known. - A. J. B., Macedon, N. Y.

put the pan in its place, and then half filled the pan with damp moss. On New Year's day I plunged my first installment of pots in the moss, and in from twentyfive to thirty days the flower-stalks were sufficiently developed to warrant their removal to the window, and a fresh supply to be potted and plunged for The tubers demanded a succession. less care than I anticipated, for if the coals are not allowed to get too low in the reservoir there is no heat ascends through them, but what is derived from contact with the metal of the stove. The plants required more watchful care after being placed in the window, and I had frequently to remove them on extreme cold days; but light does not seem to be so very essential until later on in their development. Two or three times a little neglect filled me with anxiety, but I brought them through, and taking advantage of a warm, sunny day, carried them safely home. On the 27th of April the first floret filled the house with its perfume, and I shall not be without a Tuberose from this time until late in fall, perhaps late as I shall keep on planting.

Those who try the experiment need not imitate all the details I have given; if they catch the idea they can modify the treatment to suit circumstances. I believe the only danger to be apprehended is too much heat, for I am afraid that most of our dwellings are kept at a higher temperature than I care to keep my office, but I have found the moss pretty hot at times, and in such cases merely removed the pan for a short time until it and the stove had cooled down a little.

Perhaps Tuberoses in April are nothing wonderful to the professional florist, but it was not them I had in view when I pencilled these lines, but those who, living far from a greenhouse, and have only a warm room and a sunny window to aid them in robbing the winter of its dreariness and keeping a green spot in their memory of the beauties of summer; and if I can only set a whole neighborhood of such by the ears, trying who can produce the earliest Tuberoses, I shall have my reward.—R. Calvert, La Crosse, Wis.

FALSE SCARLET SAGE.

The false scarlet Sage, Salvia pseudococcinea, is a very pretty and desirable bedding plant, belonging to the natural order Labiatæ. It is apparently a very common South American and Mexican plant, as it appears to have been noticed by all the collectors who have visited that part of the world. It was introduced into cultivation in 1797. It bears a considerable resemblance to S. coccinea, but can be readily distinguished from it by its much taller growth, its stems being covered with long, spreading hairs, not hoary with short down, by its larger leaves and by the upper lip of the corolla being rather longer. The plant grows from three to four feet in height, forming a large, branched bush, while the leaves are of a rich, deep green color above; on the under side they are often of a grayish green. In shape they are ovate, somewhat rounded at the base, and the flowers are produced on long, terminal spikes, from July until frost.

Although the single flowers of this Salvia are small in size when compared with others of the genus, yet it is a plant that should be given much more attention than it at present receives, for it is really an excellent plant for bedding purposes, being easy of cultivation as well as having the desirable quality of standing our hot, dry summer weather without sustaining the least injury, while single specimens in the mixed border have a very striking appearance during the summer months. The false scarlet Sage is one of those plants that well repay any little attention given them. Grown in a poor, shallow soil it soon suffers from drought, the flowers as well as the spikes being small, the whole plant having a stunted appearance, while, when grown under favorable conditions, it will always produce very satisfactory results.

Although the plant is a perennial, yet it is not at all adapted for cultivation in the greenhouse; it should be given the treatment usually given annuals in order to do well. For this purpose the seed should be sown about the first of April, in a pot or pan of well-drained, light, sandy soil; sow thinly and cover slightly, place the pot or pan in a warm, sunny situation, water carefully, and as soon as the young plants are strong enough they should be transplanted into shallow boxes about two or three inches apart each way; keep the young plants close and moist until well established, then gradually harden off and plant out when all danger of frost is over, in a well-prepared, rich, deep border. Thus grown, the false scarlet Sage will be found to be a very desirable bedding or border plant, and one that I think will please all who will give it a trial.—CHARLES E. PAR-NELL, Queens, L. I.

THE FRUIT PROMISE.—Having lately traveled over a large part of Western New York, I have found a fair promise of a fruit crop. The crop of Apples, though only a moderate one, will be quite general. Pears promise unusually well, and healthy Peach trees will produce fair crops. Cherries and Plums have set well.—P. B. B.



A EUROPEAN FLOWER SHOW.

The following notes of the great flower show held in Ghent, Belgium, from the 14th to the 22d of April, have been gleaned from a quite full account given by the Journal of Horticulture. "Every five years horticulturists from almost every nation in Europe assemble in Ghent, and plants from nearly every clime are arranged in the casino and gardens, forming the Quinquennial Exhibitions that have long enjoyed such wide celebrity. These famous shows are held under the auspices of the Royal Agricultural and Horticultural Society of Ghent, which was formed fifty-five years ago, and held its first show of fifty plants in a smoke room. The progress that has been made by the society, and the work it was established to promote, has been marvelous. From the very small beginning that was made truly great results have been achieved." Nearly nine hundred medals were offered for competition, of which about one hundred and thirty were gold, the others silver; besides these the premiums consisted of objects of art, silver cups, and one money prize.

Belgium exhibitions are "great ceremonial floral fetes, in which the military figures prominently, and banquets, meetings, receptions, operatic performances, &c., appear to form an integral part of the proceedings. As entertainers the Belgians excel. Thoughtful, hospitable, and affable, they appear to anticipate every want and provide for every taste, while undoubtedly they possess the aptitude for making everybody, as far as is possible, happy. They invite all nationalities, and there is no wonder the invitations are so freely accepted, as this year they were especially, all the rooms in the

chief hotels having been engaged for weeks before the show. They manage, too, to find occupation, honorary and congenial, for the greatest possible number of visitors, and thus identify them with their work. In the work of prize adjudication, for instance, what would be done in England by ten judges, is in Belgium allocated to a hundred jurymen, divided into groups, and each having its foreman or president. On the present occasion the jurors numbered one hundred and twenty-eight, invited from Germany, France, Italy, Holland, Russia, Switzerland and England. There were also about forty from Belgium."

"The plants are arranged in a series of buildings, the principal hall being about two hundred and fifty feet long by one hundred feet wide, flights of steps on one side leading to a platform entrance to other rooms. From this platform the effect of the grand masses of Azaleas, relieved by stately Palms, some in groups at the sides, the leaves reaching to the roof, twenty-five feet above, others on separate pedestals, so as to show the characters of the plants to advantage. Tree Ferns, also isolated, tower above rich masses of flowers, amongst the brightest of which are Imantophyllums; while highly colored Crotons, and bright. fine foliaged plants, stately Yuccas, sturdy and chastely marked Bromeliads, and noble Cycads impart a diversified character to the richly furnished hall.

"In the gallery a novel idea was adopted, representing an old tree with its branches shortened to lengths of three or four feet; at the end of each an Orchid being fixed with the moss. Some two dozen of these had a decidedly pretty effect.

"No plants are more extensively grown

in Belgium than Palms, hence, we find eleven classes for them and seven gold medals. The plant stages are truly magnificent, both as regards size and quality. Perhaps the king of the collection is a marvelous specimen of Ceroxylon Andicola, the Wax Palm, in the great collection of M. Ghellinck de Walle, of Azalea renown. This Palm is considered the finest cultivated example of its kind in the world, having some twenty beautiful arched leaves averaging about twenty feet long."

Mention is made of fine exhibits of Cycads, Ferns, ornamental stove and temperate house plants, of Dracænas, Crotons and Begonias, and large numbers of splendid Azaleas. "The specimens" of the latter "are umbrella-shaped, on stems ranging from two to eight feet high, and with heads of the same diameter, dense masses of flowers so closely packed that thousands have not room to expand, and yet they are of great size, the plants growing with a vigor quite wonderful."

The Camellias shown vary in height from eighteen inches to six feet, and are wonderfully flowered, the foliage being as bright and healthy as the blooms are fine. Mention is also made of Cape or Holland plants exhibited, of ornamental foliaged plants, Amaryllises, Hyacinths and Rhododendrons. "Kalmia latifolia is admirably grown, the plants having deep green foliage, which, however, is almost hidden by the huge trusses of paper white flowers.

" Miniature Orange trees grown and fruited in a wonderful manner, many of them not exceeding eighteen inches in height, yet bearing twenty The foliage is also healthy and fruits. good. They are grown in five and six inch pots, and undoubtedly reflect credit on the cultivators. Spirea Japonica is well represented, the golden variegated variety having especially fine plumes. Cinerarias are grown most vigorously, the heads of flowers two feet across resting on extraordinary foliage, some of the leaves being a foot in diameter. Aspidistras are both numerous and splendidly cultivated, the plants being three feet across, with large, deep green leaves clearly variegated. This is the favorite plant for corridors, and is very largely employed in continental hotels. Green Dracænas, such as Cordyline indivisa, are of unsurpassable quality, the plants, large and small, having the same rich, deep green hue that is indicative of high cultivation. India Rubber plants almost startle us by their size, vigor, and small pots in which they are grown. They are four or five feet high, with stems like broom handles, and huge, glossy, leathery leaves quite down to the soil.

"Floral 'crowns' are remarkable. These are oval-shaped wreaths for funerals, the shortest diameter being three feet, length four and a half or more, yellow Roses, Orchids, Violets, Lilies and Roses being arranged on a ground of Ferns and Periwinkle leaves to form the frame seven or eight inches in diameter, with a pair of leaves of Cycas revoluta fringing the interior, their stems at the base being hidden with Orchids. One of the wreaths is composed wholly of small white Camellias, two or three hundred blooms being employed, and Vinca Another is of Violets and white Lilac spirally arranged, this undoubtedly being striking. Among the smaller wreaths, such as are made in England, a mixture of yellow Roses, black Pansies and Lily of the Valley, with sprays of Box, has a remarkable effect.

"Bouquets are not better than those seen in our provincial shows, if as good; but an arrangement of unopened Orange blossoms, each bud mounted on a wire, is novel. Centerpieces furnished with Orchid flowers, standing on mirrors margined with Lilies, appear to be representative examples of table decoration, and in their way are excellent; but a gigantic basket of white Lilacs with a few colored sprays, shows to advantage by the side of the richer flowers and their elaborate setting." A grand banquet and opera were a part of the entertainment.

Dahlias, Single and Double.—The Journal of Horticulture is informed that the demand for single Dahlias is greater this year than ever. A new method of culture will probably become general this year, "namely, pegging down the plants instead of securing them to stakes. Thus treated in large beds and borders, dazzling masses of flowers are produced. In well-worked and fertile soil plants for pegging may be three feet apart." It is stated that double Dahlias are increasing in favor.

ENGLISH GARDENING.

The Journal of Horticulture thinks that the prospect of gardening in England is good, and that while individual purchases may not now be as large as before the great business depression, "the number of cultivators is becoming greater every year, and plants and flowers appear to be more and more appreciated as necessary adornments of homes and individuals. The foreign trade in cut flowers and popular decorative plants is now immense and growing, a greater aggregate amount being invested in the wares of the horticulturist than was ever invested before. The demand for large plants because they are large is less marked than formerly; but for anything of special merit and rarity purchasers are readily found, and sums given that were unheard of in the 'good old times.' When we find two plants realizing nearly £400 at a public auction, as was the case a short time ago in the sale rooms of Messrs. Stevens, namely, Cattleya trianæ Osmani, 215 guineas, and C. T. Dodsoni, 185 guineas, and a piece of a plant, as a piece of the former did, realizing 107 guineas, we can hardly think we are living in the dark days of horticulture."

At the same time it is stated that there are many gardeners out of employment. The remedy for this state of things is that fewer young men should be trained to gardening, too many having sought the employment.

PLANTING FLOWER BEDS.

A writer in the Journal of Horticulture says, "a few hints on the planting of beds may be of use to young gardeners. dare say that nineteen out of twenty if set to plant a round bed would go to the middle of the bed first, which is wrong, and it is very seldom a perfect bed is produced if commenced in that way. When planting a round, oval, or any other shape, mark out the distance from the side of the bed to where the edging plants are supposed to finish; about eighteen inches is a good distance, as that allows a double row of edging plants. Then draw a line round the bed, and on that line place the first row of Plant the Pelargoniums slantingly, as that causes them to grow more compactly. After the first row is planted work round with the next row, and so on

until the center of the bed is reached, finishing off so that the bed does not have a pointed appearance. All edging plants, except Centaureas and those of a dwarf habit, do best when they are laid sideways, as they are more easily pegged down. In carpet beds the design must be drawn first, then place in the plants as most convenient to the workmen."

SLUGS AND SNAILS.

The experience of a gardener given in a late issue of Revue Horticole, in regard to the destruction of these creatures, which are so harmful where they are abundant, is particularly worthy of attention, and it is hoped that at last we have a quick and easy method of despatching them when they make their appearance. Some pulverized sulphate of copper (Blue Vitriol) is mixed with coarse wheat bran, and the mixture placed about the garden where the slugs can have access to it; they scent the bran and greedily eat it, but almost immediately die from the effects of the copperas. In using this mixture in the open air where there is danger that birds might eat it and thus be poisond, it must be protected so as to prevent access of the birds while allowing slugs to reach it. This can easily be done by enclosing a little space with small sticks set upright, and covering it so that the slugs can crawl through, while the birds are fenced out.

S-CAT.

The Gardeners' Chronicle says: "A cat of our acquaintance, otherwise a staid. demure member of feline society, evinces a partiality for the foliage of Irises, and having consumed all within reach, has since attacked the Tulips. Asparagus. Apple parings, and Cucumbers are not despised when available; but what has surprised us more than any other procedure of this vegetarian cat is the consumption of Foxglove leaves. Were a physiologist to give Digitalis leaves to a cat, it is questionable whether the antivivisectionists would not take proceedings against him; but if a cat, of his own will, indulges in such suspicious luxuries he must take the consequences. When we last saw the cat he seemed to say by his good looks, 'Oh, it's no consequence.""



FINEM RESPICE.

To pale Miss Daisy, one summer morn, Said Madam Rose, with a look of scorn, "I'm puzzled to know why you were born;

- "You live so low that the folks who pass Scarce notice your head above the grass, You ne'er can reach our distinguished class;
- "You don't go to court, where things look gay, You deck no bride on her nuptial day; Now, what were you made for, anyway?"

From her green home, at the Rose queen's feet, The Daisy looked up, abashed and sweet, As fearing the regal glance to meet.

- "I know I'm not so grand and high,
 But I, like you, can look at the sky;
 The good God made me, and He knows why.
- "Your place is lofty, and mine is low,
 The same hand made us and bade us grow,
 That is enough for creatures to know.
- "It is not much to be flow'r or star, In the ether blue or rich parterre; 'Tis all to be true to what you are."

-WM. LYLE.

SOIL AND TREATMENT.

What kind of soil, and what treatment do the Clerodendron, Farfugium and Cissus discolor need, especially the latter? My Cissus grows beautifully in summer, but in the fall the leaves turn yellow, drop off, and the stalks gradually die down to the ground. But this year I fear it is dead, as it don't start out.—MRS. S. A. H., Tecumseh, Mich.

Evidently the difficulty with the Cissus in this case is not the soil, and, apparently, it is too low a temperature. Cissus discolor requires a high temperature and a moist atmosphere as well as a rich soil.

The soil for the Clerodendron may be good fresh loam one part, and another part of leaf mold with a small quantity of sand and old manure. A greenhouse temperature is suitable for this plant in winter, and in summer it can be planted out. A soil similar to the one mentioned above will suit the Farfugium, which likes a partially shaded location and a warm greenhouse temperature.

GREEN-FLY ON ROSES.

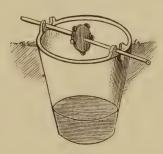
Please inform me of the best method to destroy the aphis insect on bedding Roses. Last season, my Rose bed suffered much from the attacks of these little green pests, and I then thought it was because some of my Roses had been used as window plants the previous winter, therefore, I concluded to winter them out in their garden bed, this year. I used forest leaves well packed between boards placed on edge in the openings between rows, tacking on a few lath on upper edge to hold the boards in place, and allow space for circulation of air, outside covering a foot deep with oat straw. The result, this spring, was very satisfactory, as I lost but three plants out of a bed of thirty-two. The past winter was extremely cold in this section of country. My collection includes such Roses as Bon Silene, Saffrano, Cornelia Cook, Aline Sisley, and others which I believe are generally considered tender in this latitude. I uncovered the bed when the weather began growing a little warm this spring, and trimmed my plants well back, some of them even with the soil. Nice, thrifty, dark red sprouts soon commenced shooting up from the roots, and within the past two weeks quite a number of fine buds have appeared, much larger and more perfect than any I had last year. I was just beginning to congratulate myself on the good success of my experiment in wintering out Roses, when, to-day, while looking at and admiring the beautiful, plump buds on my favorites, I noticed that a few tender leaves near a bud were shrivelled and drooping, a sure indication of the presence of the enemy to the Rose, and on turning up the under side of the leaves I was grieved to find those troublesome little green insects of last year had again put in appearance so early in the the summer. Now, I do not feel like giving up my Roses to these pests. I fought them last summer with a solution of whale oil soap and weak tobacco water, but could not get entirely rid of them. The usual method, fumigating with tobacco smoke, is, of course, impossible with these out-door Roses; but, doubtless, there is some way of ridding a Rose bed of this destructive insect, the aphis, or green fly, as it is here called. The writer is not the only sufferer, all of my amateur florist friends here are having their Roses badly injured by this same insect, and I have yet to see a bed of Monthly, or ever blooming Roses, in Illinois free from its presence. If there is a remedy for this evil, I, with many others, friends to the Rose, would like to be informed through the MAGAZINE.-I. P. C., Green Valley, Ill.

Weak tobacco water is the remedy in this case. It must be applied frequently enough to destroy the successive broods that may appear after the first general use of it. A number of applications, following each other with the intervention of a few days, will be pretty sure to end them, or at least to keep them under so that they will do no harm. Frequent syringing the foliage with clear water when the sun is low will also be of advantage. Persistent attention in this case, as well as in most others, will be fully rewarded.

MICE IN THE GARDEN.

Can you tell me, through your MAGAZINE, how to get rid of mice in my flower garden? They destroy many of my bulbs.—MRS. M. K. SMITH, Gloucester C. H., Va.

Traps and poisoning are the common methods of destroying these vermin. The danger with poison is that fowls, birds, or some favorite domestic animals, may be harmed by it. If it can be



guarded so that only the mice can get it there is no objection to its use. It would be well to feed the mice for a few days or nights with something that is palatable to them, and get them accustomed to come for their rations and expect it. After they have learned the way well the poison can be added to the feed, arsenic or any of the rat poisons in the market can be used.

Sometime since we published, from an English source, an account of a garden mouse trap, with the illustration which is now again presented for the benefit of those who have not seen it. It consists of a jar sunk in the ground, but which may as well be a common earthen jar with straight sides, and this is partly filled with water; bearings for a small wooden shaft to roll in are attached to each side, and these can be made of tin. The shaft or roller should be quite light and about three-quarters of an inch in diameter, and should roll easily on its bearings. The shaft supports a light wooden wheel three inches in diameter and three-quar-

ters of an inch thick, which is securely fastened to it; four or five wires or nails to carry the bait can be driven into the circumference of the wheel. Some cheese or bits of meat will serve for bait. A mouse will run along the shaft and attempt to climb up on the wheel to reach the bait, but in doing so will lose his balance. The dead mice should be taken out in the morning and the roller removed, to be replaced in the evening, as birds sometimes dislodge the baits during the day. The pot should be sunk so that the roller will only just clear the ground.

MAL-FORMED ROSES.

I think your Magazine is a gem. I see there are many questions asked and kindly answered by you, so I will venture to ask one. I have a fine General Washington Rose bush that had one hundred and ten buds on at one time, last spring, and only ten of the number came to perfection, the rest of them were one sided, and one-half of the Rose would break out of the stem; the buds were so large and double that there did not seem to be room on the stem for them to come out. Will you be kind enough to tell me the cause, and how to prevent it? The bush is very thrifty and looks as if there might be hundreds on it this spring.—S. J. H., Swedesboro, N. J.

The peculiarity here described is a trait of the Gen. Washington, and shows itself, more or less, always. The best course to pursue is to prune heavily, leaving but few main shoots to produce flowers, and at the same time to keep the plant well manured. In this way fewer buds will be formed, but a larger proportion of them will probably come to perfection.

VERBENAS FAILING.

Will you please to tell me what to do with Verbenas? I have had trouble with mine for three years. They will seem to be doing well, but soon will look as if they had been burnt. I have tried all kinds of soil; clay does the best.—GILLETT, Mexico, N. Y.

Verbenas raised from seed every year are the most vigorous and healthy, while those raised from cuttings are often feeble, and fall a prey to insects. In a case ,like that here complained of, it is best to make up a bed for the plants with fresh soil, and not plant twice in the same place. Raise plants from seed, keep them growing thriftily while young, giving them plenty of air, harden them off gradually, and plant in new soil, rich and mellow, and give good cultivation, and we think there will be no cause for complaint.

A FEW QUESTIONS.

Is Physalis Alkekengi a shrub, does it fruit the first year from seed, or is it of any value for ornamental planting? Are the Japanese Chrysanthemums as hardy as the Chinese varieties, and are the flowers as desirable? I have a Lily Thunbergianum citrinum in bloom, although the plant is only four inches high. It is in good soil, where other Lilies of different varieties are from two to three feet high. Will this one ever grow taller?—Subscriber.



Physalis Alkekengi, the Strawberry Tomato, or Husk Tomato, as it is variously styled, is an annual herbaceous plant, not of any particular value as an ornamental plant, but prized for its small, bright red, juicy and cherry-like fruit. The Chinese and Japanese varieties of Chrysanthemums are equally hardy and desirable. The Lily mentioned is a dwarf grower, usually attaining a height of eight to ten inches. The particular plant in question may grow taller another year when stronger.

A YOUNG FLOWER RAISER.

Having read with interest the success of H. with Lily of the Valley, contained in the May number of your MAGAZINE, I beg leave to give my experience in cultivating the same plant. After determining to attempt the culture of that modest and attractive little flower, I purchased a half dozen pips of you, thinking I might be more successful with a few, being an amateur. I put them out immediately on their arrival, the 26th of March, in a bed prepared as directed in the FLORAL GUIDE, and watered frequently until the They shoots made their appearance. were an inch high on the seventh day after planting, and in three weeks from date of planting were in full bloom. Every one admired them, and, indeed, they were as fine as I ever saw.

I would like to know if you think it a good plan to top Geraniums when they grow very tall, particularly if the stalks become long and bare. I have not been out of school very long, and am trying to learn all I can about the culture of flowers, and take great pleasure in assisting mama attend to their various wants.—Miss S. G., *Pontotoc, Miss.*

PANSIES IN UTAH.

On the 12th of May Mrs. L. J. Holly, of Springville, Utah, sent us by mail a box of specimen Pansy blooms, which were very fine. She says, in a note, "if they reach you in good condition, please let me know, through the MAGAZINE, what you think of them. All of them but the darkest purple one are from seed I bought of your house one year ago this spring. This country is very hot and dry, and I have much more trouble to raise nice Pansies than I had in old England. My friends here think them very nice, and I have the pleasure of knowing they are the finest south of Salt Lake City, and I think I could say they are as good as the best in this Territory. The white and pure yellow are not in bloom yet." As the Pansy does well at the south and at the north, and as now reported in Utah, it will probably do well on many or most parts of the great western plains, and thus prove itself to be a hardy flowering plant adapted to all parts of the country.

THE SPRING AT THE SOUTH.

We are now, May 11th, in full enjoyment of our beautiful southern spring. I wish I could give you a worthy description of it, and how I would like to send you a Magnolia blossom. Imagine the gigantic trees with their dark, glossy green leaves, and the flowers, like beautiful white birds, among the foliage; these, and other beautiful trees, form the background to our village scenery. Then we are enjoying a wealth of bloom in our gardens and yards. The Roses, Lilies, Gladioli and many others are making us happy with their delightful perfume and beautiful colors.

I have succeeded very well, indeed, with spotted Caladiums as window plants in summer. In New Orleans they are largely nsed as bedding plants.—Mrs. M. P., Evergreen, Avoyelles Parish, La.

AGAPANTHUS UMBELLATUS.

I have an Agapanthus umbellatus that is just in bloom. How should i treat it when done blooming? You say in your Catalogue they have from twenty to thirty flowers in a bunch; mine had ninety-six perfectly formed buds and flowers in the single cluster; it is of the variety umbellatus. The flower stem is three feet six inches in height.—R. B. B., Polo, Ill.



In autumn the plant can be set away in the the cellar, watering it sparingly until the middle or latter part of winter, when it can be repotted, and again started into growth. When the growth is active, and during the blooming season, it requires abundance of water.

TULIPS AND CROCUS.

We have some Tulips that are very singular, to us, at least. They are Late Show Tulips, crimson and white with yellow centers. They are about two feet high, and each bulb has two stalks and each stalk has two buds, one branching out lower than the other. Two of them are in bloom.

That very hard winter of 1881, I think, the mice carried off our Crocus bulbs under the deep snow, and put them all around everywhere in the flower borders. Some of them made their appearance the next spring and some did not. We had occasion to move some roots of perennials and divide others, quite late in the season, in June, and found our missing Crocus bulbs underneath nearly a foot depth of soil. Some of them were in full bloom, showing colors distinctly, yellow, white, purple and striped, as large and handsome as those above ground. soil was very loose and light. I noticed in the Magazine an account of Crocus blooming underground, and thought I would like to have you know about ours. -M. S. PIERCE, Tallmadge, O.

THE PHYLLOXERA.

Mr. George Husmann, the well known authority on American vines and vineyards, in a communication to the Rural Californian, says, in regard to the Phylloxera, "that although the insect makes a scanty living on the American vine, its roots are of so firm a texture that it can make but little progress, and the wounds made heal over so quickly and thoroughly that the vigor of the vine is not impaired thereby. The different classes of the American vine, however, are not equally resistant. Those which have been fully tested in France, and found satisfactory, are: first, the Aestivalis class, to which the Lenoir, Herbemont, Cunningham, Rulander, Cynthiana, Norton's Virginia, and other less known varieties belong, which also make a wine that has already acquired a high reputation there, and which flourish nearly everywhere, even on the driest soils. Second, the Riparia class, used mostly for grafting stocks, for which purpose the wild Riparia is mostly used, and which also comprises the Taylor, Clinton, Elvira, Missouri Reisling, Uhland, and a number of other varieties. These do not flourish so well on the driest soils, but have given astonishing results on the moderately moist and fertile soils.

"For very dry hillsides, the wild Rupestris, a native of Missouri, Texas and Arkansas, has lately been in great demand, as its natural habits are dry, flinty hillsides, with southern exposure, and it seems to flourish best in the driest soils.

"An experience of over fifteen years has proven the two first classes entirely resistant in France, the last has not had as long a trial.

"The Labrusca class, to which the Catawba, Isabella, Concord, Diana, and a host of others belong, have not proved as satisfactory, and as they have a tendency to root on the surface, it would not be advisable to plant them here; but they have lived and produced good crops in this State, in vineyards in Sonoma Valley and elsewhere, where the European vines were entirely destroyed by the insect. In the vineyard now under my care here, we have some old Catawba, Clinton and Isabella vines, thriving and bearing good crops, when the Mission vines and Chasselas surrounding them have been entirely destroyed."

THE WOODS IN THEIR GLORY.

I have been sojourning for a few days near Canandaigua Lake, and have made several excursions up the hill-sides. Now is the time to see the woods in their glory, and I think nowhere in this region is nature more gorgeous than on the borders of this lake. The Azalea nudiflora, or Wild Azalea, is plentiful, and its bright pink color is very attractive. The shrub grows about two feet high, with oblong leaves and a pink corolla; calyx small, and the branches thickly loaded with blossoms—as many as a dozen often formed on one stem.

The flowering Dogwood, Cornus Florida, is a great ornament, with its large and showy clusters of white flowers contrasting with the deep green of the forest trees around about. Legend says it blooms to mark the time when to sow Indian Corn.

Prunus Virginiana, or Choke Cherry, is very discernible, with its racemes of white flowers among the surrounding green of the hill-sides.

Among the lowly may now be found Lupinus perennis, or wild Lupin, with long racemes of showy purplish flowers; Indian Turnip, Arisæma triphyllum, with stalk and spathe variegated with whitish and dark purple stripes, or spots, and last, but not least, the beautiful Cypripedium, or wild Lady Slipper, of which two varieties are found, one large, C. pubescens, sepals long, lanceolate, and C. parviflorum, with flowers about half the size of the other, somewhat fragrant, the sac broader and deep yellow.

"Is not earth beautiful, is not earth bright,
Teeming with usefulness, beaming with light?"

—A. B. Sмітн, Canandaigua, N.Y.

VARIOUS QUESTIONS.

Whether Gladiolus will do as well in a box outside the window as in the garden, and other subjects, are inquired of by Mr. G. J. Y., Teeswater, Ontario. No place is so suitable for this plant as the open garden, but as the writer informs us that she has no garden ground, it is probable that the course pursued, planting the bulbs in a box fifteen inches deep, will prove successful; this depth of soil ought to ensure against excessive drought with proper attention to watering.

In regard to the method of dealing with Lily of the Valley after blooming in pots, it will always be found best to plant out the pips after having once bloomed them in the house, and use fresh, strong ones in the fall for potting. The Tigridia is increased by bulbs. Abutilon Mesopotamica is a free blooming plant.

W. L. G., Remington, Ind., writes, "Will you please give instructions in regard to the proper treatment of Lilium Harrissii. I wish to keep it as a pot plant. It has just gone out of bloom, and I wish to know what kind of treatment would suit it so it will bloom next winter." The best course to pursue is to turn the bulb out in a rather shady place in the garden and leave it until September, when it can be repotted.

JOTTINGS.

I am much interested in S. T. R.'s description of what she calls Love Vine, growing in Louisiana. Do not see how it can be identical with Golden Thread. as the seeds of the latter are about the size of Mustard seed, and are so smooth that it would seem impossible for them to adhere to the branches of shrubs, as described. Those she speaks of as clinging in clusters on the uppermost stems until they germinate must have some special arrangement for defying the tossing about by winds and the washing of rains. The Golden Thread, moreover, really clings at intervals to what it grows upon, those points thickening up and looking like joints from whence spring out other shoots, so that it must be parasitic in its nature.

Perhaps it is not too late to say what might have been said before, that those who have long been familiar with this MAGAZINE cannot fail to feel grateful to the author of the beautiful and touching tribute to the memory of the late Mr. VICK, which appeared in the May number. For this, and for many other sweet songs of nature's inspiring, some of us will think of him henceforth as the poetlaureate of the little kingdom of readers who, each month, yield heartfelt allegiance to the worthy successors of the man whose threnody he sang.

Judging from the scarcity of "Rainy Day Letters" for some time past, there must have been a long continued drought somewhere in Pennsylvania. Glad to know there has been a sprinkle at last, and trust there will be frequent rains hereafter.

A recent writer says, "it is possible that in years to come some parts of every dwelling will be constructed expressly for the culture of plants and flowers within it. A small conservatory, or at least window cases, as fixtures will be considered as essential as a good kitchen range or a bath room." It would seem that in digging a cellar for a new house that there should always be a projection dug out and walled in on one side, which could be built up more or less high and covered with glass, where plants could be kept growing in winter without special care, and brought out as desired; the entrance, of course, to be from the cellar. A little ingenious contriving as to arrangement of shelves, sand boxes, hooks for suspending pots, etc., would make all very convenient, and O, what a treasure of a place for any household.

Thanks to the editor for his outspoken condemnation of patent medicines, in June number. It helped offset the specious advertisement in that issue, which was so worded that the ignorant or unwary might easily suppose that its publication had been a matter of love and mercy on the part of the editor to afflicted humanity. If the patentee of such compounds choose to pay a hundred or more dollars for one insertion of his puff, and the publishers choose to avail themselves of such an offer, it may be considered a purely business transaction, but one which every intelligent person is supposed to understand.—Mrs. M. B. B.

CACTUS-SCALE INSECT.

I would like to tell Mrs. W. V. T., Rives Junction, Mich., of my success with a Cactus corresponding to her description, last month. It is a very rapid grower, a free and easy bloomer. I have had bloom from slips less than a year old. Through the winter I keep it in the warmest, sunniest window, and water it just as I do Geraniums. About the latter part of February or first of March buds begin to appear; through April and May the blossoms are in their greatest perfection. I have had sixty buds and blossoms at one time on a plant. As soon as the flowers are all gone, I set it on a southern porch and withhold water, and it stays

there until I house my plants for the winter. I pot in rich soil lightened with sand, and use pieces of old mortar for drainage.

I have a beautiful Golden-blotched Ivy that I could not keep free from scale insects without continually repeated handwashing with soap suds and kerosene, and, as I am a farmer's wife, and do all my work, I could not spend so much time on one plant. Last fall, I put it in the cellar, which is light and airy, and watered only occasionally; this spring the scale insects are all dead, and the Ivy is in splendid condition. I have been equally successful with Oleander.—Mrs. B. B., Hickory Corners, Mich.

GRAPE ROT AND MILDEW.

Trials made, last year, in bagging Grapes, to protect from rot, proved again that this is an effectual remedy. Amateurs who lose their Grapes by rot will do well to practice this method of protection. On a large scale in vineyard culture it will probably be too expensive. It consists in enveloping each bunch of Grapes in a small manilla bag sometime after the fruit is set and before any rot appears. The bag is secured by a pin thrust through one corner. The mildew of the foliage of Grape vines that is so disastrous in many places, it is said, can be wholly prevented by an awning or cap over the trellis. These caps have been made by nailing boards about a foot wide along the top of the trellis posts; but it is now found that common sheeting, three quarters of a yard wide, stretched along over the tops of the vines, about six inches above them, and supported by wires, to which it is fastened by pins, answers equally as well, and is much cheaper; this kind of awning will last four years.

FRUIT NOTES AND REPORTS.

As an interested reader of the Magazine, and a cultivator of fruits as well as flowers, and a beginner at both, it would be a great pleasure to me to see more notes and reports of actual experience in relation to the growth and culture of all kinds of fruits by those practically engaged with those subjects. Please, dear friends, let us have the fruit notes pointed, though brief.—J. H. B., Williamsport, Pa.

A WORD FROM THE WEST.

Vick's Magazine, as a whole, is a pleasure to me, I read it all with interest and appreciation; but sometimes a letter will speak to one not from a distance, as it were, but close at hand. So speaks to me at this time the letter called "Planting a New Place." I admire its vigorous, common sense and poetic feeling, and seem actually to have a meeting with the writer in the world of heart and mind. She has seen with an appreciative eye our glorious western prairie land, a land disgraced, as she says, by its miserable homes. I would that all home makers, here in Nebraska and the sister States, might read that letter and profit by its practical suggestions.

I feel glad to think that the writer's thoughts turn westward. Her's will be truly a missionary work when she does go west and show some of our settlers what can be done in the way of making a new place home-like. I wish I knew Susan Power, and whither she is bound. I wish I might, one day, see her realization of the beautiful picture of a western home called up by her letter; it would be truly "home, sweet home," yet there is nothing impractical in her letter. She suggests nothing but what all settlers might do if they had the taste. Living here, as I do, in the land of the sod-cabin and the dug-out, I can testify to the truth of her statement that very few do have that taste or energy. Bread, potatoes and pork, with few variations, are the regular diet of the majority here, and they do not seem to pine for the treasures of the garden and the orchard; of course, they are sufferers in body and mind.

I am pleased to see a word in favor of the little Husk Tomato, the Ground Cherry, as it is often called. It is, indeed, or might be, a treasure where fruits are scarce, but one of its most desirable qualities has not been mentioned. Where sugar is a luxury and not always to be had in large quantities for preserving purposes, and where preserving cans are limited in supply, it is no slight recommendation of the little fruit that it will keep just as it is in those protecting husks. Keep it in the cellar, away from frost, and for months it seems as fresh as when newly picked. I don't know that frost spoils it. I guess alternate freezing and thawing does. In this part of the

country we generally have all the wild Grapes, Plums and Gooseberries we These, with Tomatoes, Ground Cherries, Citron and Strawberries, in a year or two give quite a variety for jellies and preserves. It is well known that we do not depend entirely on fruit for jellies; Swedish Turnips, and possibly more hurtful ingredients, are largely used in some manufactories. I am not going to suggest that we follow such a plan in our households, but those who wish more variety might try Parsley. I have never known of its being used for jelly in this country, but in Scotland, where the plant grows luxuriantly, it was frequently so used. Tastes differ, but to some, myself among the number, few jellies were more delicious, with its fine flavor and emerald hue, so out of the common run of jellies.

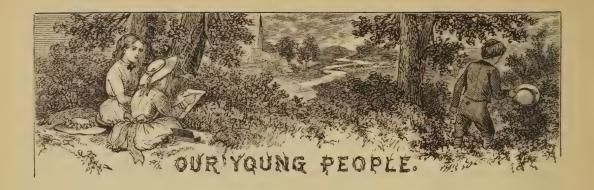
Success to Susan Power in her homemaking. May she live to see her plans carried out, and those around her imbued with some of her own spirit.—A. J. L., *Kelso*, *Neb*.

LILY OF THE VALLEY.

I was more than pleased with the success I had with the Lily of the Valley received from you, last fall. Every pip bloomed and such blossoms I never saw before. Some were grown in earth and some in moss. By setting out at different times and "keeping in a cool place until they were wanted," I had a succession of bloom for nearly three months. Every one who saw them was delighted, and I expect that Lily of the Valley will be raised this coming winter by a number of my friends. I suppose I got more satisfaction from those Lilies than from all the rest of the plants I had, and I generally have from forty to fifty pots.—T.

THE JAMES VICK STRAWBERRY.

At the time this number goes to press we cannot make a report of this spring's fruiting of the new Strawberry, but shall do so hereafter. A late number of the Rural New-Yorker says: "Last Wednesday we counted upon one plant of the James Vick Strawberry two hundred and eighty-three blossoms and buds. Did ever one Strawberry plant mature that number of berries?" It was reported, last year, that one plant of this variety had one hundred and eighty berries. This number ought to be satisfactory.



A PROBLEM DISCUSSED.

One evening, when Miss Bristol's friends were gathered about her, Herbert Talbot remarked that during a recent conversation with his father about church donations and charity-giving, the former had suddenly inquired which he would prefer if he were going to be the donor of a limited sum, to give five hundred dollars at one time or five dollars a hundred times. He added that the idea had been a perplexing one, and that he had puzzled over it ever since.

Then Miss Bristol suggested that there should be an expression of opinion all around, but none of them could make up their minds. There were arguments in favor of both methods which made them vary their decision each minute.

"You see," said Herbert, "that by choosing the small donations you could give three times a year for thirty-three years, or four times a year for twenty-five years."

"Yes, we see," responded Tom Stanley, who was an orphan and an heir to wealth, "but at the end of those years what would there be to show for these small sums scattered over so long a period? Nothing, probably." Then Emma Stanley rejoined:

"Cousin Tom, if your small sums were wisely given, and given freely, there would be much to show that might hold good for you in your time of greatest need."

"Yes, indeed," added Miss Bristol, "for to that class of people who at times are in great need of a small sum which they cannot command, an unexpected donation brings tears of gratitude and silent blessings which go to make up one's 'treasures in heaven,' when earthly treasures no longer avail us."

Tom grew thoughtful at this, but finally went on to say that it would be hard to

find out just who were most in need of the small sums. But Miss Bristol replied that "when one is on the alert in any particular direction it is wonderful how readily the eyes and ears catch up the needed clues that may lead toward the object in view. But in this case there could be no excuse for not finding out 'God's poor,' the worthy poor, for an understanding with our physician and minister would always secure to us the certainty of being able to bestow wisely. I have known of systematic donors, who put their 'charity money' directly at the disposal of a benevolent association, with instructions that it should go where it would do the most good. So, there's always a way where there's a will."

Tom fidgeted in his chair as though a sense of coming responsibility was making him restless; but seemed quite relieved when a young fellow beside him remarked that he thought the five hundred dollars could certainly be spent worthily on some institution,—"or church,' chimed in Agnes Strong whose father was a minister—"some institution where one's name could stand on the list of donors against the sum given, as tangible proof of an actual gift."

Miss Bristol promised herself to remember this youth in her Sabbath teaching when they should have come to the text where alms-givers are enjoined not to let the right hand know what the left hand doeth. For the present, his suggestion did not quite come under the head of alms-giving, so she said nothing. But he evidently wanted the world to be apprised when he made a gift, and she should take occasion to explain that though large benefactions must necessarily be known, it were well for the benefactor if the prompting of the gift and the good to result therefrom were altogether a matter

between him and the Great Giver of all. Finally, after still further discussion of the question which Herbert had sprung upon them, Miss Bristol observed that the girls were more generally in favor of the small gift plan, and that the boys seemed almost decided on the one large gift. Directly Herbert realized that Miss Bristol had not been called upon to give her own opinion, and at once exclaimed, "Why, Miss Bristol, we haven't heard from you. Now, tell us truly, which plan would you adopt if five hundred dollars were yours at this moment for disposal?"

"I should surely choose the small donations, and should give five dollars six times a year as long as I live, if that were fifty years yet."

"Out of that sum?"

"Yes; and have five hundred dollars left at last, as a legacy to will to some struggling church, or to a charitable institution."

"What do you mean?" "Explain yourself," exclaimed the boys, excitedly.

"I mean that if I had the money in hand now, as Herbert suggested, I should not let it lie idle, but should place it where I could realize at least six per cent. interest from it, which would supply me with thirty dollars for annual distribution after the first year's income was received. I have already heard the proposition put in this form, whether it were better to give a thousand dollars at one time or one dollar a thousand times, and have felt that there was more sound than sense in that way of putting it; for no one wants to let money lie unused, dribbling away a dollar at a time, when it might be doubling itself; neither does one like to be hampered by a rule that would admit of giving a certain sum in any case, however great the immediate necessity for more. Your father, Herbert, doubtless thought you would eventually detect the 'clap-trap,' so to speak, in the idea propounded, and will await your answer with some interest."

"Yes, and fine headway I was making," he answered, in disgust.

Then Tom, who had been leaning forward, with his chin on his hand, quite absorbed in Miss Bristol's talk on so vital a question, roused up, and said:

"Perhaps your father did no better. Ask him at once how he decided when the question was asked him."

Then Miss Bristol, desiring to make a point in their talk before the subject changed, resumed: "When I spoke, a few minutes ago, of not wishing to feel hampered in giving when some unexpected necessity turns up, I was reminded of a call I had recently from little Johnnie Dugan, who was going round selling Rhubarb; some of you, doubtless, saw him tugging his basket in the hot sun. You remember his father was a brakesman, and killed on the road, three months ago. His mother is an invalid and had only his wages for support, and is now left with only this boy. He told me he was selling the morning papers to help his mother, and that if I would engage his Pie Plant he would bring it twice a week. As I looked over the bunches, he said, "Five cents a bunch," in a proud, business-like way, and when I inquired if it had been raised at home, he answered, "Yes'm, raised for market; this is the first pickin', every plant made a bunch." Then I inquired who gathered "I did, myself," he answered.

"And then how I grieved for the little fellow, at the thought of what I felt I ought to tell him.

"Johnnie," said I, could you be brave over a disappointment?" and I drew him him toward me, and we sat down close together. He looked straight at me with troubled eyes, and said, "I don't know, ma'am, I've had one and I wasn't very brave." I told him it was nothing like that, and then showed and explained to him that in almost every bunch of his Rhubarb was the inner stalk or leaf stem of the plant, with the very heart or growing center attached. I pointed out to him the little sheath inside of which was the embryo of the coming leaf and stem.

"And have I killed the plant?" he asked. "O, no," I hastened to say; "but, Johnnie," I added, "you'll have no more Rhubarb to sell for a long time," and then gently explained to him how the plants would throw out a number of side growths with spindling stems, and that he would have to remove all but one or two of the strongest growths so as to get large stalks, and after a few weeks his plants would be all right again.

But he said there would be plenty of fruit then and nobody would buy it, and then added, "I could be brave for myself, but I can't be brave for mother," and laid down his head to hide the tears that would come. I gave him cheery words, and finally dried his tears with something more substantial. And now, if I have to do without the Æolian harp that I wanted for a window prop, this summer, I shall be just as happy, happier, for personal sacrifice resulting in another's happiness begets a singing in the heart not dependent on fickle breezes that may be idle or astir, as they list.

Then Tom inquired where Johnnie and his mother lived, "not that it makes any difference," he added, flushing a little, and wondering how the Canaries could afford to sing after night when the ten hour system was so well established.

The girls all said they were glad to have learned so much about Johnnie and his troubles, and that Miss Bristol could not have all the pleasure of helping him and his mother.

Herbert declared that he could not stay away from these gatherings that were so attractive in different ways, but that he was growing more and more restless and dissatisfied with himself after each one; had been thinking for quite a while that he was a tolerably smart sort of fellow, with quite a number of virtues and a good deal of shrewdness, etc., but felt now like beginning anew and making himself all over again; had never studied nature or natural history at all, and now found he didn't know the simplest operations going on in the growing world about him; had not even known, until he was here one evening, that mosquitos came from wigglers; was too ashamed to own up then, but now wanted to make a general confession, and thought he'd feel better.

"Well," said Tom, when there was a pause, "are you done berating yourself?"

"No, but I'll stop. I came here tonight expecting to say something about my future plans, and to find out whether the rest have any, and what, and have Miss Bristol for censor and adviser, and I stranded the whole company on that profound enigma, first thing, and——"

"For which, I am sure, we are all glad," said Miss Bristol. Miss Emma declared that its discussion had been very profitable, and had waked up her ideas in a direction which was thoroughly interesting.

While preparing to leave, some one

asked Herbert what vocation he had chosen for the future; but he said he would leave that subject for another time, when he should expect to hear from the others.—Aunt Marjorie.

WILD FLOWERS.

I have frequently been delighted to see the attention of your readers called to the merits of the flowers which grow wild about us, many of them in their uncared for condition comparing favorably with the choicest of our cultivated collections. Beautiful as they are in their native state, they are, nevertheless, short lived in their bloom, which we would gladly see prolonged, especially with our favorites. I did not dream that so little trouble could produce such marvelous effect in that respect until two years ago my little daughter brought from the woods a couple of roots of the little gem known as Wood Anemone, and placed it in her play garden. We noticed, the same year, that it continued in bloom much longer than those in the woods, but the following spring the spread from the little plants was astonishing; a space of several feet was filled with thrifty plants, and the blossoms came earlier, lasted much longer and were larger than the wild ones, indeed, there was a succession of bloom about half the summer, whereas, in this latitude, they last in their wild state only a couple of weeks. She also transplanted the Wood Violet with almost as good results. Surely, every one may have flowers who really wants them.-H. S., Brightwood Farm, Md

SUN SPOTS AND EARTH STORMS.

Looking at the sun with a piece of smoked glass so as to obscure some of of the light, there may often be observed some spots darker than the surrounding surface. A good telescope reveals the fact that these spots quickly change their They are supposed to indicate violent changes that are occurring in the sun-in a word, sun-storms. For some time past some careful observers have thought that the sun spots were larger, or more numerous at the time when the greatest storms occur in different parts of the earth, and now are noting the sun spots and our cyclones and storms of all kinds, to see if they are actually related to each other as cause and effect.



A MAGIC COAT.

The Caterpillar is a curious, and, to some, a repulsive looking little creature, crawling along in a seemingly useless manner, and perhaps many do not think of the depredations these small insects are capable of making in the plants and foliage of a garden and even the trees of a forest. Their curiously constructed mouths enable them to destroy the leaves of trees, and some even eat The body the stems and bark of plants. is usually long and soft, consisting of segments, or rings, and with nine small openings for respiration on each side. The head is hard and of a horny nature.

vary in number; some species have them more evenly distributed along the body than others. Those having the greater number of feet move with a regular crawling motion, while those furnished with a less number first straighten themselves out full length, then draw the body together in loop-like fashion, so that the extremities of the body meet, then straighten themselves out again, continuing to move over the ground or whatever surface on which they may be in this manner. For this reason the name Geometer, or Looper, is given to this species. These have the power of attaching themselves to the twig or branch of a tree by their hind feet, and will remain suspended in this hanging position for a long time without showing the slightest sign of life, and as they closely resemble the bark of a tree in color, can scarcely be distinguished from it. The individuals of another variety form into a company and spin a silken tent, under which they dwell, and are shielded from the elements.

Caterpillars usually change their skins four times before attaining the chrysalis state. They envelope themselves in a rather hard or horny case, or spin for themselves a silken cocoon, some seeming while in this state to be perfectly dead, while others show very decided signs of life. When the transformation is perfected the insect ejects from his mouth a fluid which softens the curious case in which it has made its home while passing from one state to the other, and enables the seemingly new creature to make its exit. And what a magic change has passed over it, for instead of a grub crawling on the ground and causing destruction in his path, a butterfly of exquisite beauty flies gaily about in the sunshine, hovering over the sweetly perfumed flowers and sipping honey from them; thus both its food and the manner in which it takes it are as different as the creature is from its former self. The wings given to these wonderful insects while in the chrysalis state are often of most exquisite beauty of color, and seem as if covered with gaily colored dainty little feathers, which when examined through a microscope fill one with wonder and surprise. seems truly a magic coat in which the Caterpillar envelopes himself until he has gained the beautiful wings which he spreads out to view as he emerges from it in his changed dress.-M. E. WHIT-TEMORE.



Below is the letter of one persevering girl on whom we can depend. When she has nothing new at home to write about she sends us flower items gathered up elsewhere. The next time she finds banded pink Lilies growing wild, perhaps a bulb or tuber, nicely tucked in damp

moss, may find its way to box 528. Had she sent a blossom and leaf to the editor he probably could have named it for her. But if it were found to be new, and therefore nameless, it could have been named the Ida May Lily! That would be an easier way to immortalize one's name than to write a book, which the critics might ruin after all. But no critic can disparage God's works, for they are always perfect. Here, surely, is a new motive for young people to keep their eyes open, for all the plants of the world have not yet been named by any means.

I am eleven years old this month, for which I was named. Next year I am going to try to get a club of ten. I have made a visit to Pine Bluffs since I wrote

There are a you. great many flowers there. I am sure I cannot name them all. There is a great variety of Bird-foot Violets, white, pink, purple, and blotched, some as large as. Pansies. Oxalis, or what some folks call Sorrel, and Columbine grow along the banks of the creek, [What creek?] also pink Sweet Williams and Cardinal Flowers, and some kind of pretty Lily with a narrow band, not much wider than a blade of grass, and the flowers are pink. There is a flower



we call Crow-bill that is pretty and fragrant. I would like the right name for it. I send you a leaf and bunch of flowers, which I have pressed. Also my card. There are several kinds of Ferns growing at Pine Bluffs, some of them very large. This month I expect to gather lots of flowers and weave them into garlands gay.—IDA MAY, Attica, Ind.

Just a word. Now, inasmuch as a sign board for Aunt M. and friends has been hung out without leave, she would like to see this letter department so crowded that she would have to rally her "friends" to help lay hold of that "Bureau" and pack it off to the attic, just "to pay back."—Aunt Marjorie.

[The plant mentioned above as Crowbill, of which a leaf and umbel of flowers was sent, and which Aunt Marjorie has forwarded to us, is Dodecatheon Meadia, often called American Cowslip, and sometimes Pride of Ohio. It is an herbaceous perennial, quite hardy, and very beautiful.—Ed.]





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CLEMATIS LANUGINOSA CANDIDA